

DOCKET NO: 248079US2



IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :  
NORIAKI OJIMA, ET AL. : EXAMINER: GARBER, W. R.  
SERIAL NO: 10/764,449 :  
FILED: JANUARY 27, 2004 : GROUP ART UNIT: 2612  
FOR: IMAGING APPARATUS, IMAGING :  
METHOD AND RECORDING MEDIUM

PETITION TO MAKE SPECIAL UNDER MPEP §708.02(VIII)

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

**I. Basis for the Petition**

Pursuant to MPEP §708.02(VIII) (8<sup>th</sup> ed. Revised May 2004), Applicants hereby petition for a special status for this Application.

**II. Requirements for Granting Special Status**

MPEP §708.02(VIII) established five requirements for a grant of special status. The following subsections show that each of these five requirements is satisfied in the above-identified case.

**A. Submit Petition and Fee: §708.01(VIII)(A)**

This petition is accompanied by the fee set forth in 37 C.F.R. §1.17(h).

**B. Agree to Election without Traverse: §708.02(VIII)(B)**

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Applicants submit that Claims 1-5 as filed are directed to a single, patentable invention. If a restriction requirement is imposed in this Application, Applicants agree to elect without traverse.

**C. State that a Preexamination Search was Made: §708.02(VIII)(C)**

A preexamination search was made and included a search of the following classes and subclasses: (1) class 348, subclasses 362 and 363; and (2) class 396, subclasses 155, 161 and 166. Also, a key word search was performed in the U.S. Patent and Trademark Office full-text database including published U.S. patent applications.

**D. Submit a Copy of the Most Relevant References: §708.02(VIII)(D)**

The most relevant references identified in Applicants' search are included in Information Disclosure Statement attached hereto, and the references discussed in the specification were filed in an information disclosure statement on April 27, 2004. All references now of record are discussed below with reference to the claimed subject matter.

**E. Submit a Detailed Discussion of the References, Pointing Out How the Claimed Subject Matter is Patentable Over the References: §708.02(VIII)(E)**

Consistent with the search discussed above, Applicants respectfully submit that the claims of the Application patentably distinguish over all references now of record. A detailed discussion pursuant to 37 C.F.R. §1.111 is provided below for pointing out with particularity how the claimed subject matter is patentable over the references of record.

Applicants' Claim 1 recites an imaging apparatus comprising:

a charge discharging device for discharging charge  
accumulated in an imaging device and for canceling exposure in a  
term for discharging the charge;

a light shielding device for shielding light by a mechanical shutter; and  
a control device for hastening by a predetermined time said discharging term for discharging the charge and a shielding timing of said mechanical shutter, if a shutter speed for recording a subject is more than a predetermined time.

U.S. Patent No. 5,153,783 (Tamada et al., hereinafter the '783 patent) describes an electronic still camera having a CCD image pickup element (22), mechanical shutter (20), and an electronic shutter for draining charge accumulated by the image pickup element.<sup>1</sup> Operation/exposure control circuit (32) uses photometric data to determine a shutter speed to be used for proper exposure, and when a determined shutter speed is equal to or slower than 1/1000 sec., the shutter mode of the camera is set to mechanical shutter mode, and when the determined shutter speed is faster than 1/1000 sec., the shutter mode of the camera is set to electronic shutter mode.<sup>2</sup> However, the '783 patent fails to teach or suggest "a control device for hastening by a predetermined time said discharging term for discharging the charge and a shielding timing of said mechanical shutter, if a shutter speed for recording a subject is more than a predetermined time", as recited in independent Claim 5.

U.S. Patent No. 6,888,570 (Yoshida, hereinafter the '570 patent) describes an image pickup device having a CCD color image pickup element (105), and exposure control mechanism (103) and a mechanical shutter (104) which are controlled by system controller (112) which controls the discharging of any remaining charge on the CCD before an exposure.<sup>3</sup> The camera is provided with two imaging modes which are selected based on a predetermined time for the exposure. The first, high-speed shutter mode is selected when a determined exposure time is less than a reference exposure time, while a second low-speed shutter mode is used when the determined exposure time is greater than the reference

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<sup>1</sup> The '783 patent, Fig. 1, col. 5, lines 1-21.

<sup>2</sup> Id., col. 8, line 66-col. 9, line 8.

<sup>3</sup> The '570 patent, col. 15, lines 60-67.

exposure time.<sup>4</sup> However, the ‘783 patent fails to teach or suggest “a control device for hastening by a predetermined time said discharging term for discharging the charge and a shielding timing of said mechanical shutter, if a shutter speed for recording a subject is more than a predetermined time”, as recited in independent Claim 5.

U.S. Patent No. 5,075,775 (Kawaoka, hereinafter the ‘775 patent) describes an electronic shutter controlling method for an electronic still video camera.<sup>5</sup> A system controller (14) accepts photometric information from a photometric circuit (18) and calculates an aperture size and exposure time corresponding to the amount of brightness.<sup>6</sup> The system controller then subtracts the determined exposure time from a predetermined constant time period which corresponds to the length from the start of a vertical blanking period to the end of the next vertical blanking period to determine the timing of an inversion of the external release signal which triggers the release of the electronic shutter.<sup>7</sup> However, the ‘775 patent fails to teach or suggest “a control device for hastening by a predetermined time said discharging term for discharging the charge and a shielding timing of said mechanical shutter, if a shutter speed for recording a subject is more than a predetermined time”, as recited in independent Claim 5.

U.S. Patent No. 5,767, 904 (Miyake, hereinafter the ‘904 patent) describes, in an electronic still camera, a mechanical shutter is opened in synchronization with a synchronizing signal generated by a synchronizing signal generating circuit allowing a CCD to be exposed.<sup>8</sup> However, the ‘904 patent does not describe that the discharge time corresponding to the electronic shutter is able to be altered whatsoever. Therefore, the ‘904 patent fails to teach or suggest “a control device for hastening by a predetermined time said discharging term for discharging the charge and a shielding timing of said mechanical shutter,

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<sup>4</sup> Id., col. 19, line 45-col. 20, line 63.

<sup>5</sup> The ‘775 patent, abstract.

<sup>6</sup> Id., col. 3, line 65-col. 4, line 1.

<sup>7</sup> Id., col. 4, lines 4-12.

<sup>8</sup> The ‘904 patent, col. 9, lines 5-9.

if a shutter speed for recording a subject is more than a predetermined time”, as recited in independent Claim 5.

U.S. Patent No. 6,700,610 (Kijima, hereinafter the ‘610 patent) describes an operating condition judging circuit which judges a variety of conditions of an imaging apparatus to control a frequency of sweep-out of unnecessary charge in the imaging elements to reduce the peak consumed current, reduce power consumption and extend battery life.<sup>9</sup> The apparatus includes a shutter driver (69) which controls the operation of the CCD (13) and sweeps-out charge determined to be unnecessary, but does not describe adjusting the electronic or a mechanical shutter time.<sup>10</sup> Therefore, the ‘610 patent fails to teach or suggest “a control device for hastening by a predetermined time said discharging term for discharging the charge and a shielding timing of said mechanical shutter, if a shutter speed for recording a subject is more than a predetermined time”, as recited in independent Claim 5.

U.S. Patent No. 6,614,477 (Lee et al., hereinafter the ‘477 patent) describes an image capture device having a variable frame image capture controller (55) for selectively applying shutter discharge pulses to the to the image capture device (42) based on the command frame rate and a shutter control signal generated by a shutter controller (53).<sup>11</sup> However, the ‘477 does not describe that the charge can be discharged in a hastened manner whatsoever and, instead, describes that a discharge pulse enable signal generator (64) generates a discharge pulse only in response to a vertical drive signal.<sup>12</sup> Therefore, the ‘477 patent fails to teach or suggest “a control device for hastening by a predetermined time said discharging term for discharging the charge and a shielding timing of said mechanical shutter, if a shutter speed for recording a subject is more than a predetermined time”, as recited in independent Claim 5.

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<sup>9</sup> The ‘610 patent, abstract.

<sup>10</sup> Id., col. 10, lines 1-25.

<sup>11</sup> The ‘477 patent, col. 4, lines 63-67.

<sup>12</sup> Id., col. 5, lines 28-30.

U.S. Patent Publication No. 2003/0048371 (Oda, hereinafter the ‘371 publication) describes a solid-state image pickup apparatus including a solid-state image sensor and a sweep controller causing unnecessary charges on the vertical transfer paths to be swept out.<sup>13</sup> A timing signal generator (22a) is also provided, which repeatedly outputs shutter pulses up to an actual exposure start time, causing signals stored in cells (28) to be discharged, the timing signal generator also commands the driver (22b) to close the mechanical shutter at the actual exposure end time.<sup>14</sup> The ‘371 publication, however, fails to teach or suggest that this discharge of cells or actuation of the mechanical shutter is able to be hastened based on a shutter speed. Therefore, the ‘371 publication fails to teach or suggest “a control device for hastening by a predetermined time said discharging term for discharging the charge and a shielding timing of said mechanical shutter, if a shutter speed for recording a subject is more than a predetermined time”, as recited in independent Claim 5.

Japanese Patent Application No. 63-002244 (Sato, hereinafter JP ‘244) describes a method of compensating for an error in exposure time caused by a delay characteristic by making the timing of the mechanical shutter opening action correspond to the delay characteristic associated with the closing action of the shutter.<sup>15</sup> JP ‘244 describes that a time corresponding to the excessive exposure amount of a shutter is determined, and when a release switch is turned on, the start of the diaphragm is delayed by this determined excessive exposure amount before starting exposure by the element shutter.<sup>16</sup> However, JP ‘244 does not describe that the element shutter time or the mechanical shutter time are able to be hastened based on a desired shutter speed. Therefore, JP ‘244 fails to teach or suggest “a control device for hastening by a predetermined time said discharging term for discharging

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<sup>13</sup> The ‘371 publication, ¶ [0030].

<sup>14</sup> Id., ¶ [0045].

<sup>15</sup> JP ‘244, abstract.

<sup>16</sup> Id.

the charge and a shielding timing of said mechanical shutter, if a shutter speed for recording a subject is more than a predetermined time”, as recited in independent Claim 5.

Japanese Patent Application No. 63-002245 (Sato, hereinafter JP ‘245) describes a camera having a lens barrel (2) including a mechanical shutter (3) mounted on the body (1) of the camera, and having a field recording mode and a frame recording mode, which can each be selected.<sup>17</sup> When the frame recording mode is selected, the timing of an exposure start is controlled by the element shutter function and an incident light to an image pickup element is interrupting by closing the mechanical shutter. In such a case, when photometry is executed based on data stored in a ROM (7), at a maximum speed shutter time, the exposure control can be optimized for the mechanical shutter (3).<sup>18</sup> JP ‘245, however, fails to describe the hastening of any shutter operations based on a shutter speed. Therefore, JP ‘245 fails to teach or suggest “a control device for hastening by a predetermined time said discharging term for discharging the charge and a shielding timing of said mechanical shutter, if a shutter speed for recording a subject is more than a predetermined time”, as recited in independent Claim 5.

Japanese Patent Application No. 2001-089611 (Kubo, hereinafter JP ‘611) describes an imaging apparatus and exposing method that is able to start exposure with little or no lag time after an exposure mode is entered.<sup>19</sup> When a shutter release button (128) is half-pressed, an exposure calculation control function (12A) performs photometry and determines exposure time, and when the shutter release button is fully pressed, a timing signal generator (120) switched from movie mode to exposure mode. A driver part (122) then supplies a fixed number of shutter pulses (122a) to an image pickup part (104), and exposure is started at a fixed point in time. The system control part (12) also controls the mechanical shutter (108d) to close at the end of an exposure time. JP ‘611, however, fails to describe the hastening of a

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<sup>17</sup> JP ‘245, abstract.

<sup>18</sup> Id.

<sup>19</sup> JP ‘611, abstract.

discharge time and mechanical shutter time based on a shutter speed. Therefore, JP '611 fails to teach or suggest "a control device for hastening by a predetermined time said discharging term for discharging the charge and a shielding timing of said mechanical shutter, if a shutter speed for recording a subject is more than a predetermined time", as recited in independent Claim 5.

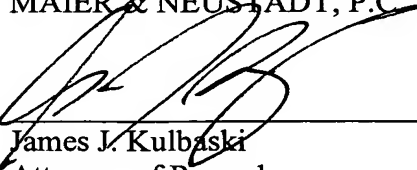
In view of the above-noted distinctions, Applicants respectfully submit that Claim 1 (and dependent Claims 2-5) are allowable. Therefore, Applicants respectfully submit that the limitations defined by pending Claims 1-5 patentably distinguish over the references of record.

### III. Conclusion

The petition to make special meets all the requirements of MPEP §708.02(VIII), and therefore, should be granted. Accordingly, Applicants respectfully request that this Application be advanced out of turn for examination, and that the assigned Examiner, pursuant to the suggestions of MPEP §708.02(VIII), contact the undersigned to schedule an interview for advancing the prosecution of this case.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



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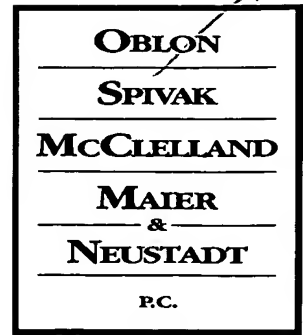
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Docket No.: 248079US2

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313



ATTORNEYS AT LAW

RE: Application Serial No.: 10/764,449  
Applicants: Noriaki OJIMA, et al.  
Filing Date: January 27, 2004  
For: IMAGING APPARATUS, IMAGING METHOD AND  
RECORDING MEDIUM  
Group Art Unit: 2612  
Examiner: GARBER, W. R.

SIR:

Attached hereto for filing are the following papers:

**PETITION TO MAKE SPECIAL UNDER MPEP §708.02 (VIII)  
INFORMATION DISCLOSURE STATEMENT  
PTO-1449**

Our credit card payment form in the amount of \$130.00 is attached covering any required fees. In the event any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 C.F.R. 1.136 for any necessary Extension of Time to make the filing of the attached documents timely, please charge or credit the difference to our Deposit Account No. 15-0030. Further, if these papers are not considered timely filed, then a petition is hereby made under 37 C.F.R. 1.136 for the necessary extension of time. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

  
James J. Kulbaski

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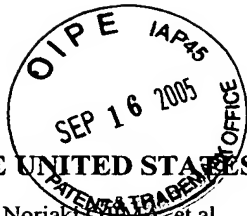
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Docket No. 248079US2



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Noriaki Oshima, et al.

SERIAL NO: 10/764,449

GAU: 2612

FILED: January 27, 2004

EXAMINER: GARBER, W. R.

FOR: IMAGING APPARATUS, IMAGING METHOD AND RECORDING MEDIUM

**INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97**

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

**REFERENCES**

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

**RELATED CASES**

- ☐ Attached is a list of applicant's pending application(s), published application(s) or issued patent(s) which may be related to the present application. In accordance with the waiver of 37 CFR 1.98 dated September 21, 2004, copies of the cited pending applications are not provided. Cited published and/or issued patents, if any, are listed on the attached PTO form 1449.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

**CERTIFICATION**

- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

**DEPOSIT ACCOUNT**

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
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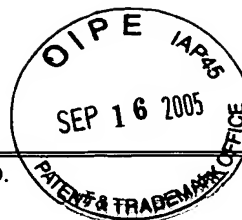
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Form PTO 1449  
(Modified)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.  
248079US2SERIAL NO.  
10/764,449

## LIST OF REFERENCES CITED BY APPLICANT

APPLICANT  
Noriaki OJIMA, et al.FILING DATE  
January 27, 2004GROUP  
2612

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA	5,153,783	10/6/1992	TAMADA et al.			
	AB	6,888,570	5/3/2005	YOSHIDA			
	AC	5,075,775	12/24/1991	KAWAOKA et al.			
	AD	5,767,904	6/16/1998	MIYAKE			
	AE	6,700,610	3/2/2004	KIJIMA et al.			
	AF	6,614,477	9/2/2003	LEE et al.			
	AG	2003/0048371	3/13/2003	ODA			
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	AO					
	AP					
	AQ					
	AR					
	AS					
	AT					
	AU					
	AV					

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AW	
	AX	
	AY	
	AZ	

☐ Additional References sheet(s) attached

Examiner

Date Considered

\*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.